

*Observers' Remarks.*

*Mr. Wickham* : Arg. Z. +  $3^{\circ}$ , 2501.—The time noted may be  $1^{\text{s}}$  late. Star very faint. W.B. XI. 365.—Having watched for several minutes after the predicted time, given in *The Observatory* for March 1895, for the reappearance, I had just given up the count when the star flashed out from the limb. I then picked up the count of the seconds, and on reference to the chronometer inferred the approximate time of reappearance to be  $15^{\text{h}} 59^{\text{m}} 46^{\text{s}}$ , or  $15^{\text{h}} 57^{\text{m}} 44^{\text{s}}$  G.M.T.

At  $15^{\text{h}} 36^{\text{m}}$  G.M.T., about the middle of the eclipse, examined the Moon by naked eye. The usual deep copper colour prevailed; the large blackish patch, occupying the centre, and diminishing in darkness towards the limb, was a striking feature of the eclipse. The effects of irradiation were strongly marked as the Moon emerged from the shadow; the illuminated portion, by contrast, appeared intensely bright, and distinctly projected beyond the darkened limb. During totality the background of the sky was very black, the Milky Way, clusters, and small stars being unusually well defined. The definition in the telescope was very good, and at totality the markings of the Moon were easily distinguished near the limb, but not at the centre.

*Mr. Robinson* : The observations were in every case satisfactory. All the occultations were instantaneous, excepting only the reappearance of  $\tau$  Leonis, which seemed to take about  $0^{\text{s}}.2$  in acquiring full brightness. When the total phase of the eclipse was nearly complete the uneclipsed crescent presented a distinctly blue colour by contrast with the usual ruddy hue, which was very pronounced over the rest of the disc.

*Radcliffe Observatory, Oxford :*  
1895 March 19.

*Note on the Total Eclipse of the Moon, 1895 March 10.*

By H. F. Newall, M.A.

The following occultations of stars were observed with the Newall Telescope, Cambridge Observatory, during the eclipse, under very favourable atmospheric conditions. The times were noted on a chronometer beating 100 to a minute. The writer observed within earshot of the chronometer, and at the moment of a disappearance or reappearance of a star began counting with the chronometer, having previously been attentive to the beats; his assistant, A. W. Goatcher, took up the counting and read off the chronometer.

With one exception, the recorded observations are considered certain within half a beat of the chronometer, that is, within  $0^{\text{s}}.3$ . The recorded time for the reappearance of the star No. 5 on Dr. Döllén's list is considered possibly  $0^{\text{s}}.6$  late.

The observations were made with the aperture 24 inches, and with the micrometer with magnifying power 307. A micrometer wire was set so as to be a chord of a small arc of the limb of the Moon, with the observed star at the middle of the arc, as near as possible to the moment at which the star was observed to be disappearing or to have reappeared; and the parallel was determined by allowing a star to trail along the wire; from

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these data the position angle measured from the north-point was determined for many of the occultations.

All the disappearances seemed to be instantaneous, without any trace of fluctuations of brightness.

The stars observed have been identified with those on Dr. Döllén's list, though the observations were made without knowledge of Dr. Döllén's list prepared for the Cambridge Observatory.

*Dr. Döllén's List.**Observations.*

No.	Mag.	Time.	Q.	Recorded		Recorded	Chronom.	Greenwich			Phenomenon.
				Mag.	Q.			Time.	Slow.	Mean	
		<sup>h</sup> <sup>m</sup>	<sup>o</sup>		<sup>o</sup>	<sup>h</sup> <sup>m</sup>	<sup>m</sup>	<sup>h</sup> <sup>m</sup> <sup>s</sup>			
3	6.9	...	...	7	...	13 29.37	1.767	14 16 46.4	Disappearance. Good		
4	8.1	...	...	8.5	95.22	13 29.99	1.767	14 17 23.5	,, "		
5	5.2	14 56.0	83	5	85.49	14 8.23	1.768	14 55 31.7	,, "		
6	8.0	14 56.2	88	9	...	14 8.38	1.768	14 55 40.7	,, "		
7	7.9	15 13.3	80	9	81.06	14 25.59	1.768	15 12 50.4	,, "		
...	...	...	...	10	325.84	14 43.11	1.768	15 30 18.8	Reappearance. "		
10	8.8	15 34.3	67	9	68.17	14 47.43	1.769	15 34 37.3	Disappearance. "		
5	5.2	15 43.6	345	5	344.88	14 55.26	1.769	15 42 25.8	Reappearance. Fair		
6	8.0	15 46.2	340	9	339.61	14 58.87	1.769	15 46 1.8	,, Good		
...	...	...	...	10	120.19	15 9.34	1.769	15 56 28.3	Disappearance. "		

Both before and after totality the part of the shaded Moon near the edge of the shadow was grey blue, and the change of colour along a radius of the shadow-disc was as in a spectrum, grey blue at the boundary of the shadow passing through green and tawny yellow to dusky red. When the encroaching shadow-edge passed through Biliy and Hansteen the limb of the Moon was already reddish, and it was noted throughout the eclipse that the dusky red was more marked on the southern parts than on the northern parts of the Moon's disc.